

**BY ORDER OF THE COMMANDER
436TH AIRLIFT WING**

**DOVER AIR FORCE BASE
INSTRUCTION 21-103**

9 APRIL 2014

Maintenance

HANGAR DOOR OPERATION



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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Dover Air Force Base Instruction (DAFBI) 21-103, *Hangar Door Operation*: Has been developed to establish management and procedures for Dover Air Force Base hangar door operation as required by Air Force Instruction (AFI) 21-101_AMCSUP, *MAF Aircraft and Equipment Maintenance Management*. Additionally, this instruction implements policy of AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, and AFI 21-101, *Aircraft and Equipment Maintenance Management*. The instruction provides guidelines and designates responsibilities for training, qualification and documentation for personnel who operate, egress, or ingress hangar doors. This instruction is applicable to all Dover AFB personnel in the 436th/512th Maintenance Group squadrons.

Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Air Force (AF) Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional's chain of command.

SUMMARY OF CHANGES

This instruction has been substantially changed by this revision and must be reviewed in its entirety. Major changes include removal of obsolete AFOSH STD references and inclusion of AFI 91-203, *Air Force Consolidated Occupational Safety Instruction* references. Requirements for a list of Authorized personnel to operate the hangar doors have changed to an entry on the G081 Special Certification Roster (SCR), as well as documentation of the AF Form 55, *Employee Safety and Health Record*, AF Form 623, *Individual Training Record Folder*, AF Form 623A, *On-The-Job Training Record Continuation Sheet*, and AF Form 797, *Job Qualification Standard Continuation*, if applicable.

1. Responsibilities.

1.1. All Hangar Door Owning Units.

1.1.1. Facility Managers.

1.1.1.1. Ensure hangar door serviceability.

1.1.1.2. Maintain a serviceable operator's checklist or, if used, have access to a digital copy of the hangar door checklist.

1.1.1.3. Identify and mark all hazards IAW AFI 91-203 para 24.14.4 and subsequent paragraphs.

1.1.1.4. Ensure cold weather signs are mounted next to hangar door controls. Signs will read: "WARNING, DO NOT LEAVE HANGAR DOORS OPEN ANY LONGER THAN NECESSARY IN COLD WEATHER (BELOW FREEZING) TO PREVENT DAMAGE TO HANGAR FACILITIES. HANGAR DOORS MUST BE OPENED TO A MINIMUM OF 10 FT. INSPECT DOOR TRACKS AND POCKETS FOR ANY SNOW AND ICE BUILD-UP THAT WOULD PREVENT SAFE OPERATION OF THE DOORS AND REMOVE IF NECESSARY PRIOR TO DOOR OPERATION. AN ADDITIONAL SPOTTER MAY BE REQUIRED IN ADVERSE WEATHER."

1.1.1.5. Ensure powered hangar doors meet the safety requirements outlined in AFI 91-203 para 24.14.8 and subsequent paragraphs.

1.1.1.6. Ensure hangar doors are on a preventative maintenance schedule IAW AFI 91-203 para 24.14.6. Preventative maintenance will be scheduled at 6 month intervals.

1.1.1.7. Immediately report any discrepancies to CES.

1.1.1.7.1. CES can be contacted at DSN 445-2856 or commercially at (302) 677-2856.

1.1.1.7.2. Lock out hangar doors until repair is made.

1.1.1.7.3. Only manually operate powered hangar doors when:

1.1.1.7.3.1. CES has evaluated the discrepancy and determined it can't be corrected in a timely manner, thereby preventing mission accomplishment.

1.1.1.7.3.2. CES has made the determination that they are safe to be manually

operated.

1.1.1.7.3.3. The Production Superintendent or ISO Dock Chief is present, has determined manual operation to be safe and authorized procedure.

1.1.1.7.3.4. Operated IAW the applicable hangar door checklist.

1.1.1.8. Report any changes to hangar door status to Group facility manager.

1.2. MXG

1.2.1. Group Facility Manager.

1.2.1.1. Will report any changes to hangar door status to CES, who will in turn report the status to the MXG/CC and Wing/CC monthly.

1.2.2. Quality Assurance Office.

1.2.2.1. Review and approve hangar door operating checklists for all MXG owned buildings. Buildings owned by MXG are 706, 711, 714, 715, 716 and 945.

1.2.2.1.1. Hangar door checklists will contain:

1.2.2.1.1.1. "Warnings", "Cautions" and "Notes" for normal door operation. To include cold weather procedures and the CES duty phone number.

1.2.2.1.1.2. Procedures for normal door operation.

1.2.2.1.1.3. "Warnings", "Cautions" and "Notes" for manual operation of powered doors. To include cold weather procedures and the CES duty phone number.

1.2.2.1.1.4. Procedures for manual operation of powered doors.

1.2.3. Group & Squadron Training Offices.

1.2.3.1. Training.

1.2.3.1.1. Develop Hangar Door Awareness Training IAW AFI 91-203, para. 24.14.5. (See [Attachment 2](#)). Incorporate initial training into MXG newcomer briefings.

1.2.3.1.2. Develop a hands-on OJT Qualification Training Program for all personnel who operate electric and manual hangar doors. At a minimum, the training will include general procedures for safe operations, applicable hazards, procedures to report discrepancies, powered door operation, non-powered door operation, emergency procedures, manual door operation, and cold weather procedures. Lastly the training will also include the applicable hangar door checklist for the door being trained on (See [Attachment 3](#)).

1.2.3.1.3. Ensure each hangar door system has its own local SCR GO81 course code IAW AFI 21-101, para. 3.4.1.73.3.8.

1.2.3.2. Training Documentation.

1.2.3.2.1. Ensure training is properly documented IAW AFI 91-203, para. 24.14.5 and AFI 21-101, para. 3.4.1.73.3.8.

1.2.3.2.2. Ensure operators have the applicable SCR code documented on the SCR or have a signed AMC Form 64, *Request for Special Certification*, by their Squadron Commander or designated representative.

1.2.4. Production Superintendents/ISO Dock Chiefs.

1.2.4.1. Will authorize manual operation IAW paragraph 1.1.1.7.3 and subsequent paragraphs.

1.2.4.2. Must be present during manual operation.

1.2.5. Hangar Door Operators.

1.2.5.1. Prior to operating hangar doors, operators must complete the following:

1.2.5.1.1. Hangar Door Awareness Training. (Course codes; Initial, SAFE001100; Annual, SAFE001101)

1.2.5.1.2. Hands-on OJT Qualification Training Program prior to operating hangar doors. (Course Code DOVR000061)

1.2.5.1.3. Be familiar with aircraft hangar operations outlined in AFI 91-203, para. 24.14.

1.2.5.1.4. Document training IAW AFI 91-203, para. 24.14.5 and AFI 21-101, para. 3.4.1.73.3.8.

1.2.5.1.5. Have the applicable SCR course code for the hangar doors being operated documented on the SCR or have a signed AMC Form 64, *Request for Special Certification*, by their Squadron Commander or designated representative. (Course Codes; BLDG. 706, DOVR000071; BLDG. 711, DOVR000072; BLDG. 714, DOVR000073; BLDG. 715, DOVR000074; BLDG. 716, DOVR000075; BLDG. 945, DOVR000081)

1.2.5.2. During hangar door operation, operators must:

1.2.5.2.1. Operate hangar doors IAW the applicable hangar door checklist.

1.2.5.2.2. Stop hangar door operation immediately if a discrepancy occurs and upon activation of a hangar door alarm or safety system.

1.2.5.2.3. Immediately contact the facility manager and the applicable Production Superintendent/ISO Dock Chief.

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Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 21-101, *Aircraft and Equipment Maintenance Management*, 26 July 2010

AFI 21-101_AMCSUP, *Aircraft and Equipment Maintenance Management*, 14 February 2011

AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 June 2012

AFMAN 33-363, *Management of Records*, 1 March 2008

Prescribed Forms

No forms prescribed by this publication.

Adopted Forms

AF Form 55, *Employee Safety and Health Record*

AF Form 623, *Individual Training Record Folder*

AF Form 623A, *On-The-Job Training Record Continuation Sheet*

AF Form 797, *Job Qualification Standard Continuation*

AF Form 847, *Recommendation for Change of Publication*

AMC Form 64, *Request for Special Certification*

Abbreviations and Acronyms

AFB—Air Force Base

CC—Commander

CE—Civil Engineering

CES—Civil Engineering Squadron

DAFBI—Dover Air Force Base Instruction

IAW—In Accordance With

IMT—Information Management Tool

JQS—Job Qualification Standard

MXG—Maintenance Group

OJT—On the Job Training

SCR—Special Certification Roster

Attachment 2**UNIT 1-1: COURSE ORIENTATION AND INTRODUCTION**

Course: C-5-2AXXX1-103

Unit 1-1: Course Orientation and Introduction

(.5 hour)

CTS/POI Element(s): 1a through 1g

Objective: Welcome students, tour facility and explain course procedures.

References: AFI 21-101, AFI 91-203, DOVERAFBI 21-103, and applicable AMC

Supplements

Equipment and Materials:

Presentation:

1. Introduction

1.1. Course Overview

1.2. Course Administration and Classroom Policies

1.3. Course Completion Criteria and Prerequisites

1.4. Student Critique/Feedback Program

1.5. Testing Procedures

1.6. Applicable Tech Orders and Instructions

1.7. Security

Attachment 3**UNIT 1-2: PERFORM INSPECTION, OPERATIONAL CHECKOUT, AND SAFE OPERATION OF SPECIFIC HANGAR DOORS**

Course: C5-2AXXX-103

Unit 1-2: Perform Inspection, Operational Checkout, and Safe Operation of Specific Hangar Doors.

(2.5 hours)

CTS/POI Element(s): 1a through 1i.

Objective: Student will gain the ability to inspect and operate specific hangar doors in both the normal and manual modes of operation. Final competency determination will be their ability to demonstrate inspection, operational check and safe operation of the hangar doors to the GO/NO GO level.

References: AFI 21-101_AMCSUP, AFI 91-203, DOVERAFBI 21-103.

Equipment and Materials: Operators Checklist, Hangar Door Awareness Training on MXG Web.

Presentation:

1. Perform an Inspection of Track ways and safely operate Hangar doors in both the normal and manual modes of operation.

1.1. Safety and Hazards

A1.1.1. Pinch/Crush Points

1.1.2. Barriers/Fencing

1.1.3. Blind Spots - Operator must have clear view of complete door travel.

1.1.4. Clear Zone Marking - There must be a 5 feet clear zone outlined on floor w/ 3 inch yellow/black striped diagonal line.

1.1.5. Danger Signs Location

1.1.6. Mechanical safeguards - *Close Button must have hinged plate over button to prevent inadvertent operation.* Ensure limit switches or doorstops have been installed and operational.

1.1.7. Hearing Protection - Required anytime a door is in operation requires a minimum of two personnel to operate doors.

1.1.8. Safety Lights and Warning Horns

NOTE: Warning devices(s) must be distinguishable from facility alarm and audible above normal noise levels.

NOTE: Warning device must sound for 5 seconds before door operation. If any part of the system is inoperative stop immediately and contact CES via command post or MOC.

1.2. Housekeeping/Inspection

1.2.1 Inspection of door tracks and door track ways for FOD or debris/obstructions; drive mechanism appears to be in good working order must be inspected every 6 months by qualified personnel outlined in AFI 91-203.

1.3. Tools and Equipment

1.3.1. Checklists

1.4. Discuss Cold Weather Procedures

WARNING: Do not leave hangar doors open any longer than necessary in cold weather (below freezing) to prevent damage to hangar facilities. Hangar doors must be opened to a minimum of 10 ft. Inspect door tracks and pockets for any snow and ice build-up that would prevent safe operation of the doors and remove if necessary prior to door operation. An additional spotter may be required in adverse weather.

1.5. Door Controls

1.5.1. Front of door and rear of door Pendant Control Buttons must be marked by the direction arrow for the direction of travel. Doors should stop when buttons are released.

1.6. Conduct Inspection of Door Ways and Tracks

1.7. Demonstrate Operational Checkout of Hangar Door

1.7.1. Electrical Mode (Powered)

1.7.1.1. Open Doors

1.7.1.2. Close Doors

1.7.2. Manual Mode

1.7.2.1. Open Doors

1.7.2.2. Close Doors

1.8. Conduct Operational Checkout of Hangar Door

1.8.1. Electrical Mode (Powered)

1.8.1.1. Open Doors

1.8.1.2. Close Doors

1.8.2. Manual Mode

1.8.2.1. Open Doors

1.8.2.2. Close Doors

1.9. Emergency Procedures

1.9.1. In the event any part of the door operation is unable to be performed or is inoperable the operator must stop and contact CES immediately via Command Post or MOC.